I. AMENDMENTS TO THE DRAWINGS

Please replace the existing drawings with the attached three replacement sheets containing formal drawings of FIGS. 1-7.

III. REMARKS

This is a supplemental response to the Office Action mailed January 16, 2008, the period in which to respond had been extended to an including July 16, 2008, and to which an amendment was filed on July 16, 2008. The present supplemental amendment is being submitted to clarify certain aspects of the invention as well as certain statements regarding the prior art. Applicants apologize for any confusion or misunderstanding that the previously submitted amendment may have caused.

By the present amendment, Applicants have amended the claims to further define the invention, submitted new formal drawings and submitted a Form PTO-1449 together with a machine translation of Japanese patent publication No. 2001-091772. Reconsideration of this application and entry of this amendment are respectfully requested.

A new set of formal drawings has been submitted by Applicants as the set of drawings submitted with the previous amendment included an error. More specifically, when the formal drawings were generated, an aspect of Fig. 3 of the drawings was redrawn incorrectly.

Independent claims 1 and 8 have been further amended herein to recite that the core is formed of a single material and that the side surfaces of the core (claim 1) or the waveguide extension (claim 8) have smooth side surfaces that create a uniform horizontal taper between the first and second ends of the core (claim 1) or waveguide extension (claim 8). Independent method claim 14 has been amended to call for forming a layer of a core material on a planar substrate material, forming first and second ends of the core layer so that the first end is wider than the second end, and forming sidewalls of said core layer so that they are smooth and extend between the first and second ends to create a uniform, horizontal taper between the ends. The etching step is specified as dry etching without etching through the single core material.

U.S. Patent No. 6,580,863 (YEGNANARAYANAN, et al.) shows a stepped waveguide structure that includes both horizontal and vertical steps rather than the smooth side surfaces of the present invention. The Yegnanarayanan et al. structure is substantially more complicated to manufacture than Applicants' claimed invention as the etching must be controlled both vertically and horizontally. While YEGNANARAYANAN, et al. specifies that the patterns may be formed using wet or dry etching, the processes described only refer to wet etching.

Applicants respectfully submit that all of the claims are in condition for allowance and look forward to such an indication.

Respectfully submitted,

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